Amendments To The Claims:

Please amend the claims as shown. Applicants reserve the right to pursue any cancelled claims at a later date.

1.-9. (canceled)

10. (new) A bipolar plate for fuel cells, wherein the bipolar plate is provided on its surface with a layer of a hydrophobing material soluble in a solvent.

11. (new) The bipolar plate in accordance with claim 10, wherein the hydrophobing material comprises entirely or partly an amorphous fluoropolymer.

12. (new) The bipolar plate in accordance with claim 10, wherein the hydrophobing material comprises entirely or partly a polysiloxane compound or alkylsilanes.

13. (new) The bipolar plate in accordance with claim 12, wherein the alkylsilanes are alkyl-aryl-silanes or halogen-alkyl-aryl-silanes.

14. (new) The bipolar plate in accordance with claim 10, wherein a thickness of the layer is adjusted to an optimum between a low electrical contact resistance to an adjoining electrode and a high hydrophobicity.

15. (new) The bipolar plate in accordance with claim 11, wherein a thickness of the layer is adjusted to an optimum between a low electrical contact resistance to an adjoining electrode and a high hydrophobicity.

16. (new) The bipolar plate in accordance with claim 12, wherein a thickness of the layer is adjusted to an optimum between a low electrical contact resistance to an adjoining electrode and a high hydrophobicity.

17. (new) The bipolar plate in accordance with claim 10, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.

18. (new) The bipolar plate in accordance with claim 17, wherein the thickness of the layer ranges from 0.5 nm to 5 nm.

19. (new) The bipolar plate in accordance with claim 11, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.

20. (new) The bipolar plate in accordance with claim 12, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.

21. (new) The bipolar plate in accordance with claim 14, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.

22. (new) The bipolar plate in accordance with claim 10, wherein the bipolar plate comprises a metallic alloy.

23. (new) The bipolar plate in accordance with claim 22, wherein the metallic alloy is a nickel-based alloy.

24. (new) The bipolar plate in accordance with claim 11, wherein the bipolar plate comprises a metallic alloy.

25. (new) The bipolar plate in accordance with claim 10, further comprising a highly-conductive contact layer between the bipolar plate and the layer made of the hydrophobing material, wherein the highly-conductive contact layer is made of a noble metal.

26. (new) The bipolar plate in accordance with claim 25, wherein the noble metal is gold.

27. (new) A fuel cell, comprising:

a membrane-electrode unit; and

a bipolar plate electrically contacting the membrane-electrode unit on the electrode side, wherein the bipolar plate is in accordance with claim 10.